

REMARKS

This amendment is a full and timely response to the Final Office Action dated April 9, 2008. In the amendment, claims 10, 13, 15, 17-22, 28 and 29 have been cancelled without prejudice or disclaimer to further prosecution of their subject matter in this or another application. Claims 1, 4, 9, 12, 16, 25, and 28 have been amended. These amendments add no new matter. Claims 1-7, 9, 12, 16, 23, 25, and 27 are now pending in the application. Reexamination and reconsideration are respectfully requested.

These amendments also merit entry after the Final Office Action, as they merely incorporate previously presented dependent claims into independent claims 1 and 4 and cancel features previously objected to by the Examiner, with minor modifications to ensure proper dependency and remove redundant references to features now recited in the independent claims.

Claims 9, 10, 12, 13, 15-22, 24, 25, 28, and 29 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. This rejection is respectfully traversed.

Claims 10, 13, 15, 17-22 and 28 have been cancelled without prejudice or disclaimer.

As to claims 9, 12, and 25, Applicant has removed the language objected to by the Examiner to expedite prosecution, but reiterates that the artisan would readily recognize the noted features.

Amended claim 1 recites the features previously objected to regarding claim 15. The features recited there are that “wherein said at least one correction curve is of the form $Signal_{OUT} = a * \log_{10}(Signal_{IN} + b) + c$.” These claimed features are clearly represented in the specification as filed. For example, FIG. 3 is a graph illustrating such features, and three specific examples of the same equation for the corresponding curve are provided in paragraphs [0038]-[0041] of the specification as filed (as represented in U.S. Pub. 2004/0196394 A1).

Amended claim 4 similarly recites features previously objected to regarding claim 28. These features are clearly represented for similar reasons, but in FIG. 4 and paragraphs [0044]-[0048] of the specification as filed.

As to claim 16, the ranges recited therein are clearly supported by the three specific examples cited in paragraphs [0038]-[0041], as well as the representation of the corresponding curves in FIG. 3 of Applicant's specification as filed.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 1, 2, 4, 5, 7, 14, 23, 26, and 27 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Charles Poynton, *A Technical Introduction to Digital video*, John Wiley & Sons 1996 ("Poynton"). This rejection is respectfully traversed.

Claim 1 recites: "[a] gamma correction device in an image capturing apparatus, the gamma correction device performing gamma correction on a video signal from an image capturing element on the basis of at least one correction curve having a predetermined input-output characteristic, wherein said at least one correction curve has a slope of 5.0 or less at the origin such that a corrected video signal conforms to film properties, wherein said at least one correction curve is of the form $Signal_{OUT} = a * \log_{10}(Signal_{IN} + b) + c$."

Poynton does not disclose or suggest these claimed features. As previously noted, Poynton does not disclose the claimed type of gamma curve, wherein the input is a video signal and the corrected video signal conforms to *film* properties. The Examiner has referenced the REC 709 curve in FIG. 6.6 Poynton, which corresponds to video, not film. The reference thus fails to disclose or suggest *wherein said at least one correction curve has a slope of 5.0 or less at the origin such that a corrected video signal conforms to film properties*, as claimed by Applicant.

Moreover, Poynton clearly fails to disclose or suggest the gently rising logarithmic curve claimed by Applicant, specifically, there is no disclosure or suggestion in Poynton of "*wherein said at least one correction curve is of the form $Signal_{OUT} = a * \log_{10}(Signal_{IN} + b) + c$,*" as claimed by Applicant. In fact, Poynton is specifically described as an exponential function, as noted by the Examiner.

Claim 4 is also neither disclosed nor suggested by Poynton. As noted regarding claim 1, Poynton does not disclose the claimed type of gamma curve, wherein the input is a video signal and a particular type of correction curve produces a corrected video signal conforming to *film* properties. Claim 4 also further specifies "*a second correction curve segment lying above the predetermined level of the input signal such that the corrected video signal conforms to film properties, and both correction curve segments are continuously combined and have the same slope at the predetermined level of the input signal, and wherein said second correction curve segment is of the form $Signal_{OUT} = a * \log_{10}(Signal_{IN} + b) + c$,*" as claimed by Applicant. The exponential power function cited by the Examiner is clearly not an example of the particular logarithmic curve segment used for the second correction curve segment.

Additionally, it is noted that the entire curve in FIG. 6.6 of Poynton is specifically described as the transfer function defined by REC 709. (Poynton, p. 102). Accordingly, it is entirely a video signal transfer function, and not a transfer function for confirming a video signal to film properties. In any event, it is clear that the transfer function is not a combination of first and second segments wherein at least the second segment is the particular logarithmic curve segment claimed by Applicant.

Poynton thus clearly fails to disclose each and every element recited in independent claims 1 and 4. The dependent claims respectively incorporate the features recited in the independent claims, and also include their own separately recited patentably distinct features, and thus are also not disclosed by Poynton. Particularly, claim 27 recites that the first segment is an

ITU-709 curve, which in combination with the particular second segment claimed by Applicant is clearly not shown by Poynton.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 4, 5, 7, 23, and 27 under 35 U.S.C. § 102(b) as allegedly being anticipated by Poynton.

Claims 3 and 6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Poynton in view of U.S. Pub. No. 2002/0061142 of Hiramatsu ("Hiramatsu"). This rejection is respectfully traversed.

Claims 3 and 6 respectively depend from claims 1 and 4 and thus incorporate the features recited therein. As previously noted on the record, Hiramatsu does not remedy the deficiencies of Poynton. Hiramatsu discloses image correction that identifies the nature of the target as a still image or a moving image. When it is a moving image, correction is performed for the entire image, and when it is a still image, the image is divided into multiple sections and correction is carried out for each section. The corrections pertain to characteristics such as contrast, brightness, and the like. As with Poynton, there is absolutely no mention of a correction curve segment that specifically causes the corrected video signal to conform to film properties. There is also no disclosure or suggestion of the particular logarithmic curves claimed by Applicant.

Since even the combination of Poynton and Hiramatsu would still fail to yield the features of Applicant's claimed invention, there is no *prima facie* case of obviousness for the independent claims, nor therefore the dependent claim that incorporate such features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Poynton in view of Hiramatsu.

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 80001-2973 from which the undersigned is authorized to draw.

Dated: June 24, 2008

Respectfully submitted,

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